

D 2  
conc. outputting said mass medium programming presentation at said at least one ultimate receiver station.

Please add the following new claims:

- D 3
24. The method of claim 2, wherein said programming is television programming, said television programming including audio and full motion video.
25. The method of claim 3, wherein said programming is television programming, said television programming including audio and full motion video.
26. The method of claim 4, wherein said programming is television programming, said television programming including audio and full motion video. --

#### REMARKS

The Office Action dated December 17, 1996 has been carefully reviewed. The Examiner's comments on the claims are acknowledged and appreciated. In response thereto, claims 2-12, and 15-23 have been amended. Although claims 13 and 14 have not been amended, they have been included for the Examiner's convenience. New claims 24-26 have been added, so that claims 2-26 remain active in the application. The foregoing amendments present no new matter and are fully supported by the specification as filed.

## **Rejections Under 35 U.S.C. § 112, second paragraph**

Claims 2-23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Office Action states that the "[E]xaminer is not certain that the meets [sic] and bounds of these claims can be determined because of the language in the disclosure and claims." The Office Action further states that "Applicants are being requested to reference the claim limitations in this application to the disclosure so that the meets [sic] and bounds of these claims can be properly considered."

Applicants shall provide a summary of the pertinent disclosure including citations to examples supporting the claimed subject matter. Applicants provide these specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and Applicants in no way intend that their submission of excerpts/examples be construed to unnecessarily restrict the scope of the claimed subject matter. The present application claims priority based on the 1987 disclosure, filed on September 11, 1987, as Ser. No. 07/096,096, and issued October 23, 1990, as U.S. Pat. No. 4,965,825.

In their 1987 continuation-in-part specification, Applicants disclose "an integrated system of programming communication" which encompasses many inventions and deliberately includes many embodiments. Their teaching technique is to introduce the principles of their integrated system in a series of *related* examples. Each example builds upon structure and principles introduced earlier. Examining basic

principles in detail in early examples, enables the specification with concreteness to expand and extend the scope of the teaching in later examples.

Starting with "**One Combined Medium**" on page 19 which focuses on the creation and delivery of a receiver specific graph in a broadcast or cablecast television program, "Wall Street Week," the specification introduces concepts of personalization of mass media and broadcast control of receiver station computing equipment. At page 28 *et seq.* it describes apparatus that include signal processors and signal decoders and introduces the concept of a signal processor *system*. At page 40 *et seq.* it teaches the composition of signal information and the organization of message streams.

Then in a series of four **examples, #1 through #4** which begin on pages 108, 143, 162, and 197, respectively, of the specification, Applicants demonstrate how receiver stations communicate signal processor apparatus and methods ("SPAM") processor code and data of the integrated system of programming communication to *some* apparatus they actuate, how decryption occurs, how metering and monitoring take place, and how actuated apparatus perform. Each example builds on concepts introduced earlier in the specification to provide a detailed teaching of its own subject matter. A particularly important teaching occurs from pages 156 through 162 where the specification teaches the structure and operating capabilities of a *controller of a decoder*.

Building on all that precedes it, **example #5**, which begins on page 248, relates how the integrated system processes a multichannel communications system, which conveys different types of signals, in order to monitor programming availability and enable receiver station apparatus to receive desired programming.

From pages 278 through 312, in **example #6** and especially **example #7**, which includes a disclosure relating to both digital and analog television signals and relates to the "Wall Street Week" program (and which has further disclosure at pages 427 through 447), the specification teaches regulating reception and use of programming of the integrated system of programming communication.

At page 312 *et seq.* it relates further monitoring concepts.

From page 324 through page 390 the specification teaches a series of transmitter station and transmitter network concepts. This portion of the specification also relies on all previous disclosure in that special attention is given to intermediate transmission stations which, *as receiver stations*, respond to programming transmissions of the integrated system as well as storing, organizing, generating, and transmitting programming. At page 340 *et seq.* **example #8** teaches distribution to, storage and organization at, and retransmission from intermediate transmission stations ("ITS") of SPAM programming -- most specifically television spot commercials. At page 354 *et seq.* **example #9** teaches automating intermediate transmission station combined medium operations by describing how an intermediate transmission station responds to an intermediate generation set and other elements of the integrated system to generate processor code and data and transmit the code and data with SPAM programming -- spot commercial unit Q of example #8 -- all of which are subsequently shown in the specification to operate at receiver stations to deliver receiver specific programming at video monitors, speakers, printers, and transmitters (telephones which communicate to remote data collection stations). At page 374 *et seq.* **example #10** extends the transmitter

and network automating concepts of examples #8 and #9 by disclosing *a plurality* of intermediate transmission stations generating processor code and data, in the fashion of example #9, and inserting different code and data into a *network originated* transmission of SPAM programming -- again the unit Q television spot commercial.

From page 390 through 516, the specification discloses further ultimate receiver station ("URS") automation concepts, including regulating the URS environment (page 396 *et seq.*), controlling multiple receivers and output devices to present coordinated output (page 406 *et seq.*), receiving selected programming of the integrated system (page 419 *et seq.*), certain *integrated system computer system concepts* (page 427 *et seq.*), whose **example #7** (page 427 *et seq.*) description relies on the receiving selected programming concepts of pages 419-427. At page 447 *et seq.* the specification discloses certain data maintenance, timing control, efficiency, and other concepts involved in controlling combined media operations. At page 457 *et seq.* the specification discloses certain timing, imaging, communication, and transmission processing concepts that relate to efficient delivery of integrated system programming. At page 463 *et seq.* the specification relates to user specific audio, print, and other combined media besides receiver specific video.

With all this preparation, the specification teaches, from page 469 through page 516, the combined media presentation of **examples #9 and #10** at a plurality of ultimate receiver stations (which are responding to signals sent by different intermediate transmission stations).

At page 516 *et seq.* the specification discloses enhancing and extending functionality of the integrated system by reprogramming receiver apparatus and enabling receiver stations to process transmissions having new forms of composition.

Finally, at page 533 *et seq.* the specification discloses "**Summary Example**" (#11) which teaches a very large scale integrated data processing and communications problem and its solution(s), using *all of* the disclosed integrated system with iterative broadcasting, response, and refinement.

Because of the integrated nature of the disclosure, no part of the specification is intended to be considered *in isolation*. However, in the present application, the examiner's attention is directed to the specification at: pages 324-390. Independent claims 2, 3, 4, and 5 are directed to scheduling and signal processing methods of communicating programming in a network. *See, e.g.*, '87 Specification, page 324, line 6 to page 354 line 4 (explaining the automation and network control of intermediate transmitter stations). Independent claims 5, 15, 17, 20, and 23 relate to scheduling and signal processing methods of communicating programming in a network using modified signals. *See, e.g.*, '87 Specification, page 324, line 6 to page 354, line 4; and page 354, line 5 to page 390, line 11 (disclosing the automation of intermediate station combined medium operations and the network control of intermediate stations).

Claims 4, 7, 8, and 22 are also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 4 has been amended to clarify the relationship between the time, channel, and frequency. Regarding claim 7,

Applicants submit that the phrase “one of said first signal and said second signal” is not ambiguous. The “one of A and B” claiming technique simply means “either A or B.” The technique improves clarity by eliminating the ambiguous use of “or” in the presence of multiple elements. Regarding claim 8, Applicants submit that the reference to prior dependent claim 7 does not result in confusion and does not warrant a *per se* rejection. M.P.E.P. § 2173.05(f) states that: “[a] claim which makes reference to a preceding claim to define a limitation is an acceptable claim construction which should not necessarily be rejected as improper or confusing under 35 U.S.C. 112, second paragraph.” Claim 22 has been amended to clarify the relationship between the multichannel broadcast signal, the multichannel cablecast signal, the control signal detector, and the digital detector.

Finally, Applicants respectfully request that all of the foregoing 35 U.S.C. § 112 rejections be withdrawn. The claims have been amended to improve clarity and to respond to certain rejections made by the Examiner. Further, Applicants’ amendments to the claims are believed to eliminate any confusion as to what elements are being claimed. Applicants have made a good faith effort to amend the claims to overcome all of the rejections and request that the Examiner call Applicants’ representative if these amendments have not addressed the problems intended by the Examiner. Accordingly, Applicants respectfully request reconsideration of the rejections of claims 2-23 under 35 U.S.C. 112.

## **Rejections Under 35 U.S.C. § 102**

Claims 15 and 16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Skerlos (U.S. Patent No. 4,461,032).

Skerlos is directed to a remotely located and controlled programming controller for a cable-compatible television receiver. The controller selectively provides cable television channels to a television receiver. Each controller responds to transmitted operating control data bits for enabling/disabling individual cable channel reception. In addition, each assigned controller responds to subsequently transmitted, uniquely coded address identifier data bits. Operating mode control and address data are represented respectively by the first and last bit groups of a head end-generated cable access signal.

Regarding independent claim 15, Applicants traverse the rejection and submit that the cable television service controller and filter element of Skerlos do not anticipate or suggest the modification of a second signal at the intermediate transmitter station based on at least one of a stored first signal and a stored identification datum, as recited in independent claim 15. Skerlos discloses that the “front end of the control/address circuit includes an RF filter/detector circuit to which the address and operating mode signals are provided from the cable. . . [and that] [t]he RF filter/detector circuit may be conventional in design . . .” (Skerlos, col. 4, lines 22-26). Skerlos does not disclose *modifying* a second signal based on a stored signal and/or a stored identification datum. The *filtering* of Skerlos serves only to selectively enable/disable individual cable

channel reception at the controller for limiting cable programming distribution and access.

Since Skerlos fails to disclose or suggest every element of the claimed invention, Skerlos does not anticipate or render obvious independent claim 15, and its dependent claim 16, of the present application. Accordingly, Applicants respectfully request reconsideration of the rejection of claims 15 and 16 under 35 U.S.C. § 102(b) as being anticipated by Skerlos.

Claims 20 and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Green, N. et al., "ORACLE on Independent Television," IBA Technical Review, Vol. 9, September 1976, Digital Television Developments, pp. 18-31. (hereinafter "Green").

Green is directed to an experimental teletext service in the London area to investigate editorial and engineering problems. The teletext service uses three computers and employs two editorial units (one for general information and the other for news). The teletext service's visual display units display both alpha-numeric information and color graphics. The teletext service also has a 'stand-by' feature or data-bridge that takes a teletext video from one video signal and re-times it for re-insertion into another asynchronous signal.

Regarding independent claim 20, Applicants traverse the rejection and submit that Green does not anticipate or suggest the method of signal processing in a network recited in claim 20 of the present application. Figure 5 of Green illustrates a data bridge that enables teletext data to be derived from one video signal, re-timed, and re-inserted into another asynchronous video waveform. Green does not disclose outputting part of

a mass medium programming presentation at a second receiver station based on at least one stored and modified signal at a first receiver station, as recited in present application claim 20. Figure 1 of Green discloses output of teletext and graphics at teletext visual display units that are *not* dependent upon stored and modified signals at other receiver stations.

Accordingly, Green does not anticipate or render obvious independent claim 20, and its dependent claim 21, of the present application and Applicants respectfully request reconsideration of the rejection of claims 20 and 21 under 35 U.S.C. § 102(b) as being anticipated by Green.

Claim 2 is rejected under 35 U.S.C. § 102(e) as being anticipated by Cox et al. (U.S. Patent No. 4,388,645). (hereinafter “Cox”).

Cox is directed to a teletext communication system with timed multipage local memory. A satellite transmits multiple pages of a teletext encoded data service at selected times of the day, including auxiliary teletext data defining a selected time interval and a unique page memory address code. Further, a teletext decoder acquires and stores each programming guide page in a page memory in response to the memory address code, and automatically rebroadcasts each stored page. The control data comprises auxiliary data rows which are transmitted together with each page of the programming guide. A cable head end facility includes a dish antenna for intercepting and coupling the transmissions to a receiver, which couples a baseband video signal to the input of a multipage teletext decoder.

Regarding independent claim 2, Applicants traverse the rejection and submit that the teletext communication system and multi-page teletext decoder of Cox do not anticipate or suggest controlling each intermediate transmitter station to transmit the received and stored programming at the scheduled time for each intermediate transmitter station. Cox discloses a teletext communications system enabling the storage of multiple pages of received teletext formatted data. Cox's central station receives teletext data and automatically rebroadcasts the stored data to a plurality of remote receivers at selected times during the day. The central station and decoders of Cox, however, do not teach or suggest scheduled times that differ for *each* of a plurality of intermediate transmission stations.

Applicants thus submit that Cox does not anticipate or render obvious independent claim 2 of the present application and respectfully request reconsideration of the rejection of claim 2 under 35 U.S.C. § 102(e) as being anticipated by Cox.

#### **Rejections Under 35 U.S.C. § 103**

Claims 2-23 are rejected under 35 U.S.C. § 103 as being unpatentable over Gimple et al. (U.S. Patent No. 4,430,731) (hereinafter "Gimple") in view of McCalley et al. (U.S. Patent No. 4,829,327) (hereinafter "McCalley").

Gimple is directed to a two-way video and data distribution module with a subscriber terminal. The system translates data received from a transmission line and transmits the data to a subscriber terminal using a subscriber drop. The system also translates data from a subscriber terminal and transmits the data to a transmission line.

The two way system isolates the transmission line from the subscriber terminal and regenerates the data transmitted both to and from the subscriber terminal.

McCalley is directed to a presentation player which: (1) receives a stream of digital packets through a standard distribution trunk; (2) converts the digital packets into a selected audio-video presentation; and (3) transmits the audio-video presentation to the requesting subscriber on a pre-assigned output channel in a standard distribution feeder. The digital packets of information include an address assigned to the particular requesting subscriber. A controller distributes the digital packets of information to a subscriber server housed within the presentation player. The subscriber server converts the packet into a formatted audio-video presentation for the requesting subscriber.

Regarding independent claim 2, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest controlling each of a plurality of intermediate transmission stations to transmit the received and stored programming at the scheduled time for each intermediate transmitter station. The Examiner concedes that Gimple does not teach that “the scheduled times differ from intermediate station to intermediate station but cites McCalley for the proposition that “[i]t would have been obvious to one of ordinary skill in the art to combine Gimple and McCalley because McCalley merely teaches that the digital interactive communication system is accessible by a plurality of subscribers upon demand.” Independent claim 2, however, is not directed to the *receiver station* selection of pre-recorded audio-video as disclosed in McCalley. Rather, independent claim 2 relates to scheduling individual times for transmission of programming at each of a

plurality of *intermediate transmitter stations*. Gimple and McCalley, whether taken alone or in combination, fail to disclose or suggest scheduling different transmission times at different transmission stations.

Regarding independent claim 3, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest controlling each of a plurality of intermediate transmission stations to transmit the selected and stored programming on the scheduled channel or on the scheduled frequency for each of a plurality of intermediate transmitter stations. Gimple in view of McCalley does not teach or suggest individually scheduled channels or individually scheduled frequencies for transmission at each of a plurality of intermediate *transmitter* stations because McCalley only discloses individual selection of pre-recorded audio-video at the *receiver* station. There is no disclosure in either Gimple or McCalley of a plurality of intermediate transmitter stations with individually scheduled channels or individually scheduled frequencies for transmission of programming.

Regarding independent claim 4, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest controlling each of a plurality of intermediate transmission stations to transmit the received and stored programming at the individually scheduled time, channel, or frequency for each intermediate transmitter station. As noted earlier, the individual selection of pre-recorded audio-video at the *receiver station* of McCalley does not teach or suggest the individually scheduled time, scheduled channel, or scheduled frequency

for transmission of programming at each of a plurality of intermediate transmission stations of independent claim 4.

Regarding independent claim 5, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest the method of signal processing in a network, as recited in independent claim 5. The delay build-out circuit for application to a modem and the transmission to a subscriber drop of Gimple (Gimple, col. 5, lines 18-20) does not teach or suggest controlling at least one intermediate transmission station a first time on the basis of information contained in or communicated to be processed with a first signal. The presentation player, converter, controller, and subscriber server of McCalley do not teach or suggest controlling at least one intermediate transmission station a second time on the basis of information contained in or communicated to be processed with the first signal.

Regarding independent claim 15, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest modifying a second signal at the transmission station based on a stored first signal and/or a stored identification datum. Gimple's video and data distribution module does not output part of a mass medium presentation by modifying a second signal based on "at least one of said stored first signal and said stored at least one identification datum," as recited in independent claim 15. The presentation player of McCalley merely transmits a receiver-selected video presentation to a subscriber on a pre-assigned output channel within a standard CATV distribution feeder.

Regarding independent claim 17, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest a method of signal processing in a network of receiver stations where each receiver station is either an intermediate transmitter station or an ultimate receiver station. The video and data distribution module output of Gimple does not teach or suggest at least one instruct signal that modifies a signal to output a mass medium programming presentation. McCalley's presentation player does not teach a transmitter control signal which operates to communicate the instruct signals to a transmitter.

Regarding independent claim 20, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest storing and modifying signals at a first receiver station to output part of a mass medium programming presentation at a second receiver station based on the stored and modified signal. Gimple's subscriber drop and transmission line do not teach or suggest that output at a second receiver station depends upon at least one signal at a first receiver station. The presentation player of McCalley outputs selected pre-recorded audio-video presentations at each television set independent of other requesting subscribers.

Regarding independent claim 23, Applicants traverse the rejection and submit that neither Gimple nor McCalley, taken alone or in combination, teach or suggest the method of signal processing in a network recited in independent claim 23. The delay build-out circuit for application to a modem and the transmission to a subscriber drop of Gimple (Gimple, col. 5, lines 18-20) does not teach or suggest controlling at least one

intermediate transmission station a first time on the basis of information contained in or communicated to be processed with a first signal. The presentation player, converter, controller, and subscriber server of McCalley do not teach or suggest controlling at least one intermediate transmission station a second time on the basis of information contained in or communicated to be processed with the first signal.

In view of the preceding remarks, Gimple in view of McCalley fails to teach or suggest independent claims 2-5, 15, 17, 20, and 23. The remaining dependent claims are not rendered obvious for at least the reasons proffered with regard to their respective independent claims. Accordingly, Applicants respectfully request reconsideration of the rejection of claims 2-23 under 35 U.S.C. § 103 as being unpatentable over Gimple in view of McCalley.

### **Double Patenting Rejections**

Claims 2-23 are twice rejected under the judicially created doctrine of non-obviousness, non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414. As to the double patenting rejections, Applicants' views are fully discussed in Applicants' reply brief to the rejections in application number 08/113,329, and that reply brief is incorporated by reference herein. Moreover, the claims of the present application are patentably distinct from the representative claims of U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414.

As an initial matter, the Examiner's rejection of the present application under the Schneller double patenting theory based on Harvey U.S. Patents 4,694,490 and 4,704,725

is improper because the present application does not claim the benefit of those applications under 35 U.S.C. § 120. Thus, there could never have been a basis for claiming the present subject matter in those applications. Therefore, the rejection based on Harvey U.S. Patents 4,694,490 and 4,704,725 should be withdrawn.

Moreover, the PTO fails to specifically identify all claims from cited Harvey patents that cover specific claims in the present application. Rather, the Office Action references “representative claims” from patents and the present application. The Office Action does not cite specific elements from claims in a patent covering specific elements in claims in the application. In fact, the Office Action acknowledges that the patent claims and application claims are directed to different elements, but states that this “does not prohibit this rejection if there is common or interrelated subject matter recited.” The Office Action then references Schneller in support of this erroneous statement, not supported by Schneller.

The claims in the present application are distinct from the claims in the Harvey patents. As previously mentioned, the Office Action states that the independent and distinct standard was the main factor in the Schneller court’s determination that the double patenting rejection should be affirmed. The Office Action has misinterpreted this phrase. This phrase means independent ‘or’ distinct. M.P.E.P. (6th ed.) § 802.01. The M.P.E.P. defines independent as meaning “that there is no disclosed relationship between the two or more subjects disclosed” and that they are not connected. The M.P.E.P. defines the term distinct as meaning that “two or more subjects disclosed are related . . . but are capable of separate manufacture, use, or sale as claimed . . .” Two

or more subjects cannot then be unrelated, independent, and also related, and thus distinct. Analyzing the PTO's cited representative claims referenced in the Office Action, the claims of the present application are clearly distinct from the claims in the patents and therefore the claims in the present application are patentable.

Although not required, Applicants will analyze the claims of the present application with respect to the designated representative claims of Harvey U.S. Patents 4,694,490 and 4,704,725.

Claim 2 of the present application is distinct from the first representative claim, claim 7 of U.S. Patent 4,694,490.

Claim 7 of patent 4,694,490 recites a method of communicating television program material, said material including a video signal containing a television program and an instruct-to-overlay signal, to multiple receiver stations. The video signal is received and the instruct-to-overlay signal detected and processed by a computer. The computer generates and transmits its overlay video signals to a television receiver which presents a combined display of the television program and overlay video signals, said display specific to a specific user.

Present application claim 2 relates to a method of communicating programming to at least one subscriber in a network. Each of a plurality of intermediate transmission stations is controlled to transmit the received and stored programming at a scheduled time. The scheduled times differ from intermediate transmission station to intermediate transmission station.

Application claim 2 is not directed to the concept of a video signal containing a television program and an instruct-to-overlay signal. Claim 7 of the '490 patent does

not disclose the concept of controlling each of a plurality of intermediate transmission stations to transmit the received and stored programming at the scheduled time for each of the plurality of intermediate transmission stations. Claim 7 of the '490 patent does not claim the same subject matter as claimed in present application claim 2. The two claims are capable of separate manufacture, use, and sale as claimed. These two inventions are patentably distinct.

**U.S. patent 4,694,490, claim 7**

In a method of communicating television program material to a multiplicity of receiver stations each of which includes a television receiver and computer, the computers being adapted to generate and transmit overlay video signals, to their associated television receivers, said overlay signals causing the display of user specific information related to said program material, and with at least some of said computers being programmed to process overlay modification control signals so as to modify the overlay video signals transmitted to their associated receivers, each of said computers being programmed to accommodate a specific user application, and wherein a video signal containing a television program signal and an instruct to-overlay signal are transmitted to said receiver stations, the steps of:

receiving said video signal at a plurality of receiver stations and displaying said program material on the video receivers of selected ones of said plurality of receiver stations

detecting the presence of said instruct-to-overlay signal at said selected receiver stations at a time when the corresponding overlay is not being displayed, and coupling said instruct-to-overlay signal to

**Present application, claim 2 (amended)**

A method of communicating programming to at least one subscriber in a network, said network comprising at least one programming origination station, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each of said plurality of intermediate transmission stations receiving programming from said at least one programming origination station and retransmitting said received programming to at least one of said plurality of subscriber stations, said method comprising the steps of:

scheduling a time for transmitting programming from each of said plurality of intermediate transmission stations to said at least one subscriber, said scheduled time differing from intermediate station to intermediate station;

communicating to a computer at each of said plurality of intermediate transmission stations said scheduled time for each of said plurality of intermediate transmission stations to transmit said programming to said at least one subscriber;

transmitting said programming to said plurality of intermediate transmission stations;

controlling each of said plurality of intermediate transmission stations to

the computers at said selected receiver stations, and causing the computers at said selected receiver stations to generate and transmit their overlay video signals to their associated television receivers in response to said instruct-to-overlay signal, thereby to present a combined display at the selected receiver stations consisting of the television program and the related computer generated overlay, the overlays displayed at a multiplicity of said receiver stations being different, with each display specific to a specific user.

receive and store said programming for a period of time; and controlling each of said plurality of intermediate transmission stations to transmit said received and stored programming at said scheduled time for each of said plurality of intermediate transmission stations.

Claim 2 of the present application is distinct from the second representative claim, claim 3 of U.S. Patent 4,704,725.

Claim 3 of patent 4,704,725 recites a method of communicating output signals comprising data and user specific signals at a multiplicity of receiver stations from computers to output devices. At least some of the computers can modify the user specific signals by processing modification control signals. The computers communicate the data and user specific signals in response to a received and detected instruct-to-transmit signal.

Present application claim 2 relates to a method of communicating programming to at least one subscriber in a network. Each of a plurality of intermediate transmission stations is controlled to transmit the received and stored programming at a scheduled time. The scheduled times differ from intermediate transmission station to intermediate transmission station.

Claim 3 of the '725 patent relates to the communication of user specific signals. Present application claim 2 relates to a method of communicating programming to at

least one subscriber in a network. Application claim 2 is not directed to the concept of modification control signals. Claim 3 of the '725 patent does not teach or suggest the concept of controlling each of a plurality of intermediate transmission stations to transmit the received and stored programming at the scheduled time for each of the plurality of intermediate transmission stations. Patent claim 3 does not claim the same subject matter as claimed in present application claim 2. The two claims are capable of separate manufacture, use, and sale as claimed. Thus, these two claimed inventions are patentably distinct.

<b>U.S. patent 4,704,725, claim 3</b>	<b>Present application, claim 2 (Amended)</b>
<p>A method of communicating data to a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific signals to one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify the user specific signals transmitted to their associated output devices, each of said computers being programmed to accommodate a special user application, comprising the steps of:</p> <p>transmitting an instruct-to-transmit signal to said computers at a time when the corresponding user specific information is not being transmitted to an output device;</p> <p>detecting the presence of said instruct-to-transmit signal at selected receiver stations and coupling said instruct-to-transmit signal to the computers associated with said selected stations, and</p> <p>causing said last named computers to generate and transmit their user specific signals to their associated output devices in response to said instruct-to-transmit signal, thereby to transmit to the selected</p>	<p>A method of communicating programming to at least one subscriber in a network, said network comprising at least one programming origination station, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each of said plurality of intermediate transmission stations receiving programming from said at least one programming origination station and retransmitting said received programming to at least one of said plurality of subscriber stations, said method comprising the steps of:</p> <p>scheduling a time for transmitting programming from each of said plurality of intermediate transmission stations to said at least one subscriber, said scheduled time differing from intermediate station to intermediate station;</p> <p>communicating to a computer at each of said plurality of intermediate transmission stations said scheduled time for each of said plurality of intermediate transmission stations to transmit said programming to said at least one subscriber;</p> <p>transmitting said programming to</p>

output devices an output signal comprising said data and said related user specific signals, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

said plurality of intermediate transmission stations;

controlling each of said plurality of intermediate transmission stations to receive and store said programming for a period of time; and

controlling each of said plurality of intermediate transmission stations to transmit said received and stored programming at said scheduled time for each of said plurality of intermediate transmission stations.

Claim 2 of the present application is distinct from the third representative claim, claim 24 of U.S. patent 4,965,825.

Claim 24 of patent 4,965,825 recites a method of generating user-specific output information at a multiplicity of receiver stations. Each receiver station is programmed with a special user application and has a computer adapted to generate user specific output information. Each receiver station has an output device to which its computer transmits a user-specific signal. At a time when the user specific output information does not exist, an instruct-to-generate signal is transmitted to the receiver stations. In response to the instruct-to-generate signal, the computers generate and transmit to the output devices the user specific output information in user specific signals which are different, "with each output signal specific to a specific user".

Present application claim 2 relates to a method of communicating programming to at least one subscriber in a network. Each of a plurality of intermediate transmission stations is controlled to transmit the received and stored programming at a scheduled time. The scheduled times differ from intermediate transmission station to intermediate transmission station.

Claim 24 of the '825 patent relates to transmission of user-specific information at a time when said information does not exist. Also, in claim 24, each receiver station is programmed with a special user application. These limitations and features are not taught or suggested by present application claim 2. Present application claim 2 relates to a method of communicating programming to at least one subscriber in a network. Present application claim 2 is not directed to the concept of the receiver station being programmed with a special user application.

Claim 24 of the '825 patent does not teach or suggest the concept of controlling each of a plurality of intermediate transmission stations to transmit the received and stored programming at the scheduled time for each of the plurality of intermediate transmission stations. Patent claim 24 does not claim the same subject matter as claimed in present application claim 2. The two claims are capable of separate manufacture, use, and sale as claimed. Thus, these two claimed inventions are patentably distinct.

U.S. patent 4,965,825, claim 24	Present application, claim 2 (Amended)
<p>In a method of generating computer output at a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific output information content and user specific signals to one or more associated output devices, with at least one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify said computers' method of processing data and generating output information content, each of said computers, being programmed to accommodate a special user application, the steps of:</p> <ul style="list-style-type: none"><li>· transmitting an instruct-to-generate signal to said computers at a time when</li></ul>	<p>A method of communicating programming to at least one subscriber in a network, said network comprising at least one programming origination station, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each of said plurality of intermediate transmission stations receiving programming from said at least one programming origination station and retransmitting said received programming to at least one of said plurality of subscriber stations, said method comprising the steps of: · scheduling a time for transmitting programming from each of said plurality of intermediate transmission stations to said at least one subscriber, said scheduled</p>

corresponding user specific output information content does not exist, and causing said last named computers to generate their user specific output information content in response to said instruct-to-generate signal, thereby to transmit to each of their associated output devices an output information content and the user specific signal of its associated computer, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

time differing from intermediate station to intermediate station;

communicating to a computer at each of said plurality of intermediate transmission stations said scheduled time for each of said plurality of intermediate transmission stations to transmit said programming to said at least one subscriber;

transmitting said programming to said plurality of intermediate transmission stations;

controlling each of said plurality of intermediate transmission stations to receive and store said programming for a period of time; and

controlling each of said plurality of intermediate transmission stations to transmit said received and stored programming at said scheduled time for each of said plurality of intermediate transmission stations.

Claim 2 of the present application is distinct from the fourth representative claim, claim 15 of U.S. Patent 5,109,414.

Claim 15 of patent 5,109,414 recites a signal processing system which receives data from a data source and outputs the data to a matrix switch and a detector, control signals are detected within the received data and stored for further processing, and a processor controls the directing functions of: (1) the matrix switch which receives the data as input and can direct selected portions of the data to a data transmission means; and (2) the device which stores and transfers the control signals to the processor.

Present application claim 2 relates to a method of communicating programming to at least one subscriber in a network. Each of a plurality of intermediate transmission stations is controlled to transmit the received and stored programming at a scheduled

time. The scheduled times differ from intermediate transmission station to intermediate transmission station.

Claim 15 of the '414 patent relates to controlling a matrix switch to communicating data from a single data source to a data transmission selectively by processing control signals which are detected within the data and stored for further processing. Application claim 2 does not teach or suggest the concepts of a matrix switch, a detector, or storage of control signals. Patent claim 15 does not teach or suggest the concept of controlling each of a plurality of intermediate transmission stations to transmit the received and stored programming at the scheduled time for each of the plurality of intermediate transmission stations. Claim 15 of the '414 patent does not claim the same subject matter as claimed in present application claim 2. The two claims are capable of separate manufacture, use, and sale as claimed. Thus, these two claimed inventions are patentably distinct.

<u>U.S. patent 5,109,414, claim 15</u>	<u>Present application, claim 2 (Amended)</u>
<p>In a signal processing system, a receiver/distribution means for receiving data from a data source and for outputting said data to a matrix switch means and a control signal detector means, a matrix switch means for receiving said data from said receiver/distributor means and for directing selected portions of said received data to a data transmission means, a control signal detector means for detecting control signals respecting said data and transferring said control signals to a storage/transfer means, said control signal means being configured to detect said control signals at a predetermined location within said data, a storage/transfer means for receiving and storing said control signals and for transferring at least a portion of</p>	<p>A method of communicating programming to at least one subscriber in a network, said network comprising at least one programming origination station, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each of said plurality of intermediate transmission stations receiving programming from said at least one programming origination station and retransmitting said received programming to at least one of said plurality of subscriber stations, said method comprising the steps of: scheduling a time for transmitting programming from each of said plurality of intermediate transmission stations to said at least one subscriber, said scheduled time differing from intermediate station to intermediate station;</p>

said control signals to a processor means for further processing, and

a processor means for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means based on instructions contained in said control signals.

communicating to a computer at each of said plurality of intermediate transmission stations said scheduled time for each of said plurality of intermediate transmission stations to transmit said programming to said at least one subscriber;

transmitting said programming to said plurality of intermediate transmission stations;

controlling each of said plurality of intermediate transmission stations to receive and store said programming for a period of time; and

controlling each of said plurality of intermediate transmission stations to transmit said received and stored programming at said scheduled time for each of said plurality of intermediate transmission stations.

As to paragraph number 2 of the Office Action, Applicants respectfully point out that the Information Disclosure Statements filed for the subject application claim priority to the application filed September 11, 1987, and issued as U.S. Pat. No. 4,965,825 on October 23, 1990. The present application claims priority under 35 U.S.C. § 120 of the following applications:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Patent No.</u>
08/113,329	August 30, 1993	Pending
08/056,501	May 3, 1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825

Applicants will address the art rejections of this Office Action, but traverse the assertion that a double patenting situation exists.

As to paragraph number 3 of the Office Action, Applicants acknowledge their duty to maintain a line of patentable demarcation between related applications. If substantially duplicate claims are found to exist, however, Applicants will make a good faith effort to alert the PTO of any instances in which the PTO treats such claims inconsistently.

As to paragraph number 4 of the Office Action, Applicants acknowledge and appreciate the Examiner's concern over the use of alternative claim language. Applicants assert that the disclosure supports every possible embodiment or permutation that can be created using said language.

As to paragraph number 18 of the Office Action, the Examiner states that "determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time." Applicants submit that the Examiner and the PTO cannot defer further rejections to a later time. Every ground of rejection should be made in the Examiner's first Office Action. 37 C.F.R. § 1.104(a) states that "[o]n taking up an application for examination . . . the Examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect to both compliance of the application . . . with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated." The M.P.E.P. states "[t]he [E]xaminer's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder of invention,

fundamental defects in the application, and the like, the action of the [E]xaminer may be limited to such matters before action is made." M.P.E.P. § 707.07, citing 37 C.F.R. § 1.105. Finally, "[p]iecemeal examination should be avoided as much as possible. The [E]xaminer ordinarily should reject each claim on all valid grounds available . . ." "Where a major technical rejection is proper, it should be stated with full development of reasons rather than by mere conclusion coupled with some stereotyped expression." M.P.E.P. § 707.07(g). Applicants submit that the Examiner has a duty to give each application a complete examination, to make rejections with specificity, and to not defer rejections.

For these reasons, Applicants likewise traverse the rejection, made in paragraph 19 of the Office Action, which is based on the "judicially created doctrine of double patenting" over the claims of copending U.S. application 08/113,329 and the copending applications listed on pages 12, 13, 14, 15, and 16 of the Office Action. Applicants submit that this rejection, even if appropriately made with specificity, should nonetheless be a provisional double patenting rejection. Applicants, however, respectfully request that this rejection be withdrawn.

Finally, Applicants acknowledge and appreciate the interviews provided by the PTO. Applicants also appreciate the detailed description of the interviews provided in paragraph 21 of the Office Action. In the interest of maintaining a clear record, however, Applicants respectfully traverse the Office Action's interview summary statement that an offer was made to terminally disclaim the present application with respect to the '81 or '87 patents. Rather, Applicants respectfully submit that their offer

was to disclaim a block of copending applications against one another, provided their issue date was in close enough proximity so as not to result in unnecessarily great losses in patent term duration.

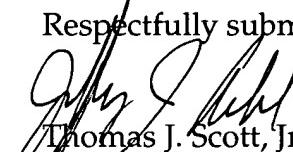
The claims of the present application have been amended to further clarify the claimed invention. Applicants have also amended the claims in response to the Examiner's various objections and queries. Applicants submit that all pending claims clearly define the metes and bounds of the claimed subject matter, and are supported by an adequate written description that is fully enabling. Further, it is respectfully submitted that the claims in the present application should be allowed because these structures and methods are not taught, suggested, or anticipated by the applied prior art taken alone or in combination.

## CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections are rejections have been overcome and/or rendered moot. Further, it is respectfully submitted that all pending claims patentably distinguish over the prior art, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for telephone interview to discuss resolution of such informalities.

Date: June 16, 1997  
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